

REMARKS

The Office Action mailed April 14, 2006 has been carefully reviewed and the foregoing amendment has been made in consequence thereof.

Claims 1-18 are now pending in this application. Claims 1-6, 9-14, 17, and 18 stand rejected. Claims 7, 15, and 16 stand objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The rejection of Claims 1-3 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement is respectfully traversed. Claim 1 has been amended. The amendment does not introduce new matter and is supported throughout the specification, for example at page 5, first paragraph. Accordingly, Applicant respectfully requests that the Section 112, first paragraph, rejection be withdrawn.

The rejection of Claims 1, 3, 4, 6, 8, 10-12, 14, and 17 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 3,885,176 to Cunningham (hereinafter referred to as "Cunningham") in view of U.S. Patent No. 6,384,501 to Braun (hereinafter referred to as "Braun") is respectfully traversed.

Cunningham describes a dynamoelectric machine with a bearing lubrication system including a shaft (18), a rotor (17) mounted on the shaft (18), a bearing system (19), and a lubrication system for the bearing means including a lubricant reservoir (66) with lubricant retaining material disposed therein. Cunningham also describes a feed wick (42) for transferring lubricant from the lubricant reservoir (66) to the bearing surface and rubbing sealings (61, 62) cooperating with a raised portion of the lubricant reservoir (66) defining an end cap (31). The rubbing sealings (61, 62) are arranged to prevent movement of contaminants into the lubrication system.

Braun describes a self-centering timing disk hub with a timing disk support surface (1a) and a tubular hub sleeve (1b). An end of the hub sleeve (1b) is pushed onto a motor shaft (1d) to provide in the hub sleeve (1b) a contact surface between an inner wall surface of the hub sleeve (1b) and the motor shaft (1d). The hub sleeve (1b) is slotted at least in the

region of the motor shaft (1d) and a clamping element (2) is movably arranged on an outer wall surface at the sleeve end.

Notably, Braun does not describe outwardly displacing a spring member or forming an interference fit between the hub and the output shaft. Instead, Braun utilizes a clamping element to grip the motor shaft.

Claim 1 recites a method of shielding a condenser fan motor from contaminants, the condenser fan motor including a housing and an output shaft, said method utilizing a dust shield including a shroud, a center opening through the shroud, and a hub extending around a perimeter of the opening, wherein the hub includes an opening extension and a spring member coupled to the opening extension, said method including “fitting the opening of the shroud over the output shaft; inserting the output shaft through the opening; engaging the hub to the output shaft, wherein the spring member is outwardly displaced as the hub receives the output shaft thereby forming an interference fit between the hub and the output shaft; and positioning the dust shield adjacent the housing such that the shroud defines an enclosure to encompass a part of the housing to prevent contaminants from reaching a portion of the output shaft adjacent the housing.”

Neither Cunningham nor Braun, alone or in combination, describes or suggests a method of shielding a condenser fan motor from contaminants as recited in Claim 1. Specifically, neither Cunningham nor Braun, alone or in combination, describes or suggests a hub including a spring member coupled to an opening extension. Neither Cunningham nor Braun, alone or in combination, describes or suggests engaging the hub to the output shaft, wherein the spring member is outwardly displaced as the hub receives the output shaft thereby forming an interference fit between the hub and the output shaft.

Rather, Cunningham merely describes a rubbing seal and an end cap that engages a shaft, and Braun merely describes a hub sleeve that is secured to the motor shaft by a clamping element. Notably, neither Cunningham nor Braun, alone or in combination, describes or suggests a spring member coupled to an opening extension, wherein the spring member is outwardly displaced as the hub receives the output shaft thereby forming an interference fit between the hub and the output shaft.

Accordingly, for at least the reasons set forth above, Claim 1 is respectfully submitted to be patentable over Cunningham in view of Braun.

Claim 3 depends from independent Claim 1. When the recitations of Claim 3 are considered in combination with the recitations of Claim 1, Applicant submits that dependent Claim 3 likewise is patentable over Cunningham in view of Braun.

Claim 4 recites a condenser fan motor dust shield for shielding a condenser fan motor from contaminants wherein the condenser fan motor has an output shaft, said condenser fan motor dust shield including “a shroud; a central opening through said shroud and configured to receive the output shaft; a hub extending from said shroud and adapted to obstruct at least a portion of said opening, said hub comprising an opening extension and a spring member coupled to said opening extension, wherein said spring member is outwardly displaced when the output shaft is received in said central opening.”

Neither Cunningham nor Braun, alone or in combination, describes or suggests a condenser fan motor dust shield as recited in Claim 4. Specifically, neither Cunningham nor Braun, alone or in combination, describes or suggests a hub including a spring member coupled to an opening extension. Neither Cunningham nor Braun, alone or in combination, describes or suggests that the spring member is outwardly displaced when the output shaft is received in the central opening.

Rather, Cunningham merely describes a rubbing seal and an end cap that engages a shaft, and Braun merely describes a hub sleeve that is secured to the motor shaft by a clamping element. Notably, neither Cunningham nor Braun, alone or in combination, describes or suggests a spring member coupled to an opening extension, wherein the spring member is outwardly displaced when the output shaft is received in the central opening.

Accordingly, for at least the reasons set forth above, Claim 4 is respectfully submitted to be patentable over Cunningham in view of Braun.

Claims 8 and 10 depend from independent Claim 4. When the recitations of Claims 8 and 10 are considered in combination with the recitations of Claim 4, Applicant submits that the dependent Claims 8 and 10 likewise are patentable over Cunningham in view of Braun.

Claim 11 recites a shielded condenser fan motor assembly including "a motor comprising a housing and an output shaft; and a dust shield attached to said shaft, said dust shield comprising a shroud, and a hub extending from said shroud, said hub comprising an opening extension and a spring member coupled to said opening extension, said spring member outwardly displaced around said output shaft, wherein said shroud forms an enclosure which encloses an area of said housing and said shaft."

Neither Cunningham nor Braun, alone or in combination, describes or suggests a shielded condenser fan motor assembly as recited in Claim 11. Specifically, neither Cunningham nor Braun, alone or in combination, describes or suggests a hub including a spring member coupled to an opening extension. Neither Cunningham nor Braun, alone or in combination, describes or suggests the spring member outwardly displaced around the output shaft. Rather, Cunningham merely describes a rubbing seal and an end cap that engages a shaft, and Braun merely describes a hub sleeve that is secured to the motor shaft by a clamping element.

Accordingly, for at least the reasons set forth above, Claim 11 is respectfully submitted to be patentable over Cunningham in view of Braun.

Claims 12, 14, and 17 depend from independent Claim 11. When the recitations of Claims 12, 14, and 17 are considered in combination with the recitations of Claim 11, Applicant submits that the dependent Claims 12, 14, and 17 likewise are patentable over Cunningham in view of Braun.

Applicant respectfully submits that the Section 103 rejection of the presently pending claims is not a proper rejection. As is well established, obviousness cannot be established by combining the teachings of the cited art to produce the claimed invention, absent some teaching, suggestion, or incentive supporting the combination. The Examiner has pointed to Braun (col. 4, lines 10-20) for suggesting a small bending stress for installing the timing disk of Braun, and for suggesting that other materials can be used in manufacturing the timing disks thus leading to reduced manufacturing costs. However, Braun does not suggest or provide an incentive for combining the teachings of Braun with Cunningham.

Thus, the present Section 103 rejection is based on a combination of teachings selected from multiple patents in an attempt to arrive at the claimed invention. Since there is

no teaching or suggestion in the cited art for the combination, the Section 103 rejection appears to be based on a hindsight reconstruction in which isolated disclosures have been picked and chosen in an attempt to deprecate the present invention. Of course, such a combination is impermissible, and for this reason alone, Applicant requests that the Section 103 rejection be withdrawn.

Accordingly, for at least the reasons set forth above, Applicant requests that the Section 103(a) rejection of Claims 1, 3, 4, 6, 8, 10-12, 14, and 17 be withdrawn.

The rejection of Claims 2, 5, 9, and 13 under 35 U.S.C. § 103(a) as being unpatentable over Cunningham and Braun, in further view of U.S. Patent No. 4,287,662 to Otto (hereinafter referred to as "Otto") is respectfully traversed.

Cunningham and Braun are described above.

Otto describes a method of assembling a device (11) having a sleeve section (13) integral with a pair of opposite annular slingers (15, 17) in a preselected assembly position onto a rotatable shaft (19) of a prime mover (21). Device (11) is assembled with respect to an end plate (23) of prime mover (21) and an opening (25) in the end plate (23) through which the shaft (19) extends so as to preclude contamination of a lubricant in a lubricating system (29) of the prime mover (21) communicated with the opening (25). Device (11) is operative in the event the prime mover is operated in an environment in which a fluid that is incompatible with the lubricant may be presented to at least one of the end plate (23) and an exterior end section (33) on the shaft (19) extending beyond the opening (25). The method includes arranging the sleeve section (13) in gripping engagement about the exterior end section of the shaft and moving the device (11) on the exterior section toward the opening in the end plate (23). The method also includes inserting the sleeve section (13) into the opening (25) and locating one of the slingers (15, 17) over the opening (25) and with respect to a raised part of the end plate disposed about the opening. The position of the other slinger on the shaft (19) with respect to the opening (25) and the lubrication system (29) is predetermined so that the other slinger is disposed in lubricant slinging relation with respect to a part of the lubrication system (29) when the one slinger is located with respect to the raised part of the end plate during the inserting and locating step.

Claim 1 is recited above.

None of Cunningham, Braun, and Otto, considered alone or in combination, describes nor suggests a method of shielding a condenser fan motor from contaminants as recited in Claim 1. Specifically, none of Cunningham, Braun, and Otto, considered alone or in combination, describes nor suggests a hub including a spring member coupled to an opening extension. None of Cunningham, Braun, and Otto, considered alone or in combination, describes nor suggests engaging the hub to the output shaft, wherein the spring member is outwardly displaced as the hub receives the output shaft thereby forming an interference fit between the hub and the output shaft.

Rather, Cunningham merely describes a rubbing seal and an end cap that engages a shaft, and Braun describes a hub sleeve that is secured to the motor shaft by a clamping element. Otto merely describes a device mounted to a shaft to preclude contamination of a lubricant in a lubrication system for the shaft, wherein the device includes a sleeve section extending axially from a flange.

Accordingly, for at least the reasons set forth above, Claim 1 is respectfully submitted to be patentable over Cunningham and Braun, in further view of Otto.

Claim 2 depends from independent Claim 1. When the recitations of Claim 2 are considered in combination with the recitations of Claim 1, Applicant submits that dependent Claim 2 likewise is patentable over Cunningham and Braun, in further view of Otto.

Claim 4 is recited above.

None of Cunningham, Braun, and Otto, considered alone or in combination, describes or suggests a condenser fan motor dust shield as recited in Claim 4. Specifically, none of Cunningham, Braun, and Otto, considered alone or in combination, describes or suggests a hub including a spring member coupled to an opening extension. None of Cunningham, Braun, and Otto, considered alone or in combination, describes or suggests that the spring member is outwardly displaced when the output shaft is received in the central opening.

Rather, Cunningham merely describes a rubbing seal and an end cap that engages a shaft, and Braun describes a hub sleeve that is secured to the motor shaft by a clamping

element. Otto merely describes a device mounted to a shaft to preclude contamination of a lubricant in a lubrication system for the shaft, wherein the device includes a sleeve section extending axially from a flange.

Accordingly, for at least the reasons set forth above, Claim 4 is respectfully submitted to be patentable over Cunningham and Braun, in further view of Otto.

Claims 5 and 9 depend from independent Claim 4. When the recitations of Claims 5 and 9 are considered in combination with the recitations of Claim 4, Applicant submit that the dependent Claims 5 and 9 likewise are patentable over Cunningham and Braun, in further view of Otto.

Claim 11 is recited above.

None of Cunningham, Braun, and Otto, considered alone or in combination, describes or suggests a shielded condenser fan motor assembly as recited in Claim 11. Specifically, none of Cunningham, Braun, and Otto, considered alone or in combination, describes or suggests a hub including a spring member coupled to an opening extension. None of Cunningham, Braun, and Otto, considered alone or in combination, describes or suggests the spring member outwardly displaced around the output shaft.

Rather, Cunningham merely describes a rubbing seal and an end cap that engages a shaft, and Braun describes a hub sleeve that is secured to the motor shaft by a clamping element. Otto merely describes a device mounted to a shaft to preclude contamination of a lubricant in a lubrication system for the shaft, wherein the device includes a sleeve section extending axially from a flange.

Accordingly, for at least the reasons set forth above, Claim 11 is respectfully submitted to be patentable over Cunningham and Braun, in further view of Otto.

Claim 13 depends from independent Claim 11. When the recitations of Claim 13 are considered in combination with the recitations of Claim 11, Applicant submits that dependent Claim 13 likewise is patentable over Cunningham and Braun, in further view of Otto.

The rejection of Claim 18 under 35 U.S.C. § 103(a) as being unpatentable over Cunningham and Braun, in further view of U.S. Patent No. 4,800,309 to Lakin (hereinafter referred to as “Lakin”) is respectfully traversed.

Cunningham and Braun are described above.

Lakin describes a self-aligning bearing and end shield mount (10) including a bearing (30), a spring (32), a thrust plate (34), a spacer (36), and an oil cap (38). The spacer (36) includes a hub portion (70) having a central hole (72) therethrough through which the rotor shaft extends. The hub portion (70) also has an oil seal ring portion (75) at the base of ribs (74) to prevent oil migration toward the rotor. The spacer also includes arms (82) that extend generally in the axial direction from the hub (70) and have fingers (84) at the ends thereof. The fingers 84 seat within an annular locating groove (86) in the rotor shaft to secure the spacer against axial movement relative to the shaft. The contoured surfaces (86), acting against the end of the shaft by application of an axial force, cause the arms (82) to flex outwardly so that the contoured surfaces move along the shaft surface. When the fingers reach the locating groove (86) in the shaft, the arms (82) release radially inwardly so that the fingers lock within the groove.

Notably, Lakin does not describe an opening extension or spring members.

Claim 11 is recited above.

None of Cunningham, Braun, and Lakin, considered alone or in combination, describes or suggests a condenser fan motor dust shield as recited in Claim 11. More specifically, none of Cunningham, Braun, and Lakin, considered alone or in combination, describes or suggests a hub including a spring member configured to allow the hub to expand around an output shaft. Rather, Cunningham merely describes a rubbing seal and an end cap that engages a shaft, and Braun describes a hub sleeve that is secured to the motor shaft by a clamping element. Lakin describes a self-aligning bearing and end shield mount including a spring that has an outer ring that concentrically surrounds the hub. Notably, none of Cunningham, Braun, and Lakin, considered alone or in combination, describes or suggests a spring member coupled to an opening extension, wherein the spring member is outwardly displaced around the output shaft.

Accordingly, for at least the reasons set forth above, Claim 11 is respectfully submitted to be patentable over Cunningham and Braun, in further view of Lakin.

Claim 18 depends from independent Claim 11. When the recitations of Claim 18 are considered in combination with the recitations of Claim 11, Applicant submits that the dependent Claim 18 likewise is patentable over Cunningham and Braun, in further view of Lakin.

Accordingly, for at least the reasons set forth above, Applicant requests that all rejections of Claims 1-6, 9-14, 17, and 18 be withdrawn.

In view of the foregoing amendments and remarks, all the claims now active in this application are believed to be in condition for allowance. Reconsideration and favorable action is respectfully solicited.

Respectfully submitted,

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